

USING TECHNOLOGY TO ENHANCE SENSE OF COMMUNITY ACROSS COURSE FORMATS

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Abstract

Sense of community in education is correlated with student learning, satisfaction and retention. Variables shown to foster sense of community include instructor lead discussions, culling student opinions and timely and appropriate instructor feedback. Current research and evidence-based best practices for using readily available technologies to increase community perception in varied course formats are discussed.

Background

Community suggests “a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members’ needs will be met through their commitment to be together (McMillan & Chavis, 1986).” As a basic human motivation, it can help elucidate many aspects of interpersonal interaction (Baumesiter & Leary, 1995). Several education theorists hold that interacting with others is the critical for building knowledge and is mediated by language and collaboration (Rovai, 2002a). Research suggests that feeling a sense of community is positively associated with students' motivation, health, academic self-efficacy and persistence (Reis, et al, 1985; Faircloth, & Hamm, 2005; Freeman, Anderman & Jensen, 2007; Hausmann, Schoffield, & Woods, 2007) and that students who perceive alienation are more likely to self-isolate, cut class, fail and ultimately drop out (Rovai, 2002b).

Community appears to be important not only in face-to-face formats, but in virtual learning as well where it can impact students' perception of achievement, interactivity, and retention (Rovai, 2002b; Boston, et al, 2009). The Community of Inquiry model offers theoretical support as it emphasizes social presence impact on the online environment (Garrison, Anderson, & Archer, 2010). Ni and Aust (2008) confirmed this perspective and determined that community was the most significant predictor of perceived learning in online coursework and student satisfaction. Variables identified by several researchers that promote sense of community across formats include dynamic discussions, encouragement of expression of opinion and timely and appropriate feedback (Haar & Scanlan, 2012; Kupczynski, et al, 2010, Oliphant & Branch-Mueller, 2016; Shackelford & Maxwell, 2012). Subsequent and ongoing research indicates as well significant and potential impact of technology on these course elements (Moore, 2015; rockinson-Szapkiw, et al, 2014; McConnell, et al, 2013).

Use of New Technologies

Since research has shown higher perception of community in face-to-face formats, some educators seek to bring in the synchronous component of real time interaction into online courses. Unfortunately, this is not appropriate in all cases: Students, due to an atypical schedule, geographic location in a remote time zone and/or other responsibilities may choose an asynchronous program (Moore, 2012). The key for instructors and directors is finding a balance between students' expectations and capabilities and the improved sense of community new technologies can potentially bring in in both synchronous asynchronous environments.

- **Polling software:** Classroom Response Systems (Clickers) have been associated with increased student engagement in higher education (Gould, 2016; Zoumenou, et al, 2015) but require equipment purchase and maintenance. Polling software downloads such as allow embedding of polls in PowerPoint or Google slides and student voting through smartphones. (Poll Everywhere, 2018). Polls can be used to cull student opinion or check student mastery of material presented and the instructor can choose from multiple choice, open ended, brainstorm type or rank question formats.
- **Video conferencing:** Online video discussions can foster group cohesion and increase participation as they include audio and visual cues (Clark, Strudler & Grove, 2015; Floronda & Lippincott, 2014; Pinsk, et al, 2014). Video conferencing platforms such as Zoom can be used for information sessions and interviews for prospective students and for office hours for current students, especially in online programs. Guest speakers, virtual student discussion groups, student project collaboration and conducting class when the instructor is at a conference can all be facilitated through this technology. Only the host needs an account and sessions can be recorded for those who don't participate. Zoom has a polling feature embedded in the software so polling can be easily combined with a video conference (Zoom, 2018)
- **Video/audio enabled discussion platforms** such as VoiceThread enable all participants to see and hear each other without being in the same location or participating at the same time (VoiceThread, 2018). Asynchronous conversations within online courses around images, documents, presentation and videos have been shown to increase sense of instructor's presence, elevate sense of community and reduce feelings of isolation (Borup, West & Graham, 2012; Pacansky-Brock, 2015).

Online courses can use this platform for faculty and student introduction videos in which others can respond via video, audio or text. Instructors can provide narrated slides where students can ask questions and receive answers on individual slides while student projects can require students to create similar presentations for their class. Case studies can be presented this way with each student assigned to answer specific questions: This can be done within one class or as an interdisciplinary activity involving those from other majors.

- **Screen Capturing Computer App:** This type of software, such as Jing, allows you to record narration over what is on the computer screen along with mouse movements for up

to 5 minutes. (Jing, 2018) Since timely and complete instructor feedback is critical between student and instructor, audio feedback is another tool in fostering student connection (Charron & Raschke, 2014; Haar & Scanlan, 2012; Ice, et al, 2007) Audio feedback can be given on assignments in all course formats. Within online courses, instructors can clarify points in the syllabus or record instructions for students while showing a handout or website. Students may be asked as part of their assignments to create Jing clips and share with the class, thus enhancing communication skills. Since the clips are saved as URLs they can easily be posted on the discussion board and as part of student assignment feedback.

Conclusions

In addition to enhancing sense of community within the classroom, using these technologies gives students practice with tools they can utilize as professionals. As more technology options become available, more research in education is needed to continually assess appropriate adoption of available resources in reaching program goals and learning outcomes as well as increasing class community. While some faculty may be reluctant to adopt new instructional methods, with adequate encouragement and support, they may be more likely to be engaged and eager to adopt new methods.

References

- Baumesiter, R.F., & Leary, M.R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497-529.
- Borup, J., West, R. & Graham, C. (2012). Improving online social presence through asynchronous video. *Inter Higher Educ.*, 15, 195-203
- Boston, W., Díaz, S., Gibson, A., Ice, P., Richardson, J., & Swan, K. (2009). An exploration of the relationship between indicators of the community of inquiry framework and retention in online programs. *Journal of Asynchronous Learning Networks*, 13, 67-83.
- Charron, K. & Raschke, R. (2014). Student perceptions and experiences using Jing and Skype in an accounting information systems class. *J Educ Bus.*, 89, 1-6.
- Clark, C., Strudler, N. & Grove, K. (2015). Comparing asynchronous and synchronous video vs. test based discussions in an online teacher education course. *Online Learning*, 19(3), 1-12.
- Faircloth, B.S., & Hamm, J.V. (2005). Sense of belonging among high school students representing four ethnic groups. *Journal of Youth Adolescence*, 34, 293-309.
- Foronda C, Lippincott C. (2014). Graduate nursing students' experience with synchronous interactive videoconferencing within online courses. *Q Rev Distance Educ.*, 15:1-8.

- Freeman, T. M., Anderman L.H., & Jensen, J.M. (2007). Sense of belonging in college freshman at the classroom and campus level. *Journal of Experimental Education*, 75, 203-220.
- Garrison, D.R., Anderson, T., & Archer, W. (2010). The first decade of the community of inquiry framework: A retrospective. *The Internet and Higher Education*, 13, 5-9.
- Gould, S. (2016). Potential use of classroom response systems (CRS, Clickers) in foods, nutrition and dietetics higher education. *J Nutr Educ Behav.*, 48, 669-673
- Haar, M. & Scanlan, C. (2012). Factors associated with perception of community in allied health students. *Journal of Allied Health*. 41(3), 123-130.
- Hausmann, R. M., Schoffield, J. W., & Woods, R. L. (2007). Sense of belonging as a predictor of intentions to persist among African American and white first-year college students. *Research in Higher Education*, 48, 803-832.
- Ice, P., Curtis, R., Phillips, P., & Wells, J. (2007). Using asynchronous audio feedback to enhance teaching presence and students' sense of community. *J Asynch Learning Networks*, 11, 3-25.
- Jing (2018) Retrieved from <https://www.techsmith.com/jing.html>
- Kupczynski, L., Ice, P., Wiesenmayer, R., & McCluskey, F. (2010). Student perceptions of the relationship between indicators of teaching presence and success in online course. *J Interactive Online Learning*, 9, 23-43.
- McMillan, D. W., & Chavis, D. M. (1986). Sense of community: A definition and theory. *Journal of Community Psychology*, 14, 6-23.
- McConnell, T., Parker, J., Eberhardt, J, Koehler, M., & Lundeberg, M. (2013). Virtual professional learning communities: Teachers' perceptions of virtual versus face-to-face professional development. *J Sci Educ Tech.*, 22, 267-277.
- Moore, J. (2012). A synthesis of Sloan-C effective practices. *Journal of Asynchronous Learning Networks*, 16 (1) Retrieved from [jaln_v16n1_7_A_Synthesis_of_SloanC_Effective_Practices,_December_2011_0.pdf](#)
- Ni, S-F., & Aust, R. (2008). Examining teacher verbal immediacy and sense of classroom community in online classes. *International Journal on E-Learning*, 7, 477-498.
- Oliphant, T. & Branch-Mueller, J. (2016). Developing a sense of community and the online student experience. *Educ For Information*, 32, 307-321.
- Pacansky-Brock, M. (2018). VoiceThread: Enhanced community, increased social presence and improved visual learning. *Online Learning Consortium*. Retrieved from

http://sloanconsortium.org/effective_practices/voicethread-enhanced-community-increased-social-presence-and-improved-visual-lea

Pinsk, R., Curran, M., Poirier, R. & Coulson, G. (2014). Student perceptions of the use of student-generated video in online discussions as a mechanism to establish social presence for non-traditional students: A case study. *Iss Info Systems*, 15, 267-276.

PollEverywhere (2018) Retrieved from: <https://www.polleverywhere.com/plans/higher-ed>

Reis, H.T., Wheeler, L., Kernis, M.H., Spiegel, N., & Nezelek, J. (1985). On specificity in the impact of social participation on physical and psychological health. *Journal of Personality and Social Psychology*, 48, 456-471

Rockinson-Szapkiw, A., Heuvelman-Hutchinson, L. & Spaulding L. (2014). Connecting online: Can social networking and other technology support doctoral connectedness. *J Univ Teaching Learning Practice*, 1, 1-13.

Rovai, A.P. (2002a). Building Sense of Community at a Distance. *The International Review of Research in Open and Distance Learning*, 3(1), 1-16. Retrieved from <http://www.irrodl.org/index.php/irrodl/article/view/79/153>

Rovai, A.P. (2002b). Development of an instrument to measure classroom community. *Internet and Higher Education*, 5, 197-221. Retrieved from [http://dx.doi.org/10.1016/S1096-7516\(02\)00102-1](http://dx.doi.org/10.1016/S1096-7516(02)00102-1)

Shackelford, J. L., & Maxwell, M. (2012). Sense of Community in Graduate Online Education: Contribution of Learner to Learner Interaction. *International Review Of Research In Open & Distance Learning*, 13(4), 228-249.

VoiceThread LLC. (2018) VoiceThread in higher education. Retrieved from <http://voicethread.com/products/highered/>

Zoom (2018) Retrieved from <https://zoom.us/>

Zoumenou, V., Sigman-Grant, M., & Coleman, G., et al. (2015) Utilizing technology for FCS education: Selecting appropriate interactive webinar software. *J Family Consumer Sci.*,107(3), 33-40.